

WHAT IS CLAIMED IS:

1. A full thickness resection device comprising:

a control handle including an actuator wherein, when the device is in an operative position within a body lumen of a patient, the control handle remains outside the patient's body;

a working head assembly coupled to a control handle by a flexible sheath, wherein, when the device is in the operative position; the working head assembly is located within a body lumen of the patient adjacent to a portion of tissue to be treated, the working head assembly including a tissue stapling mechanism including first and second tissue stapling members moveable relative to one another; and

a first cable extending from the actuator through the flexible sheath to the first tissue stapling member so that, when the actuator is operated to draw the first cable proximally from the sheath, the first tissue stapling member is moved in a first direction relative to the second tissue stapling member.

2. The device according to claim 1, further comprising a second cable extending from the first tissue stapling member to the control handle so that, when the second cable is drawn proximally from the sheath, the first tissue stapling member is moved relative to the second tissue stapling member in a second direction opposite to the first direction.

3. The device according to claim 1, further comprising a resilient member biasing the first tissue stapling member relative to the second tissue stapling member in a second direction opposite to the first direction so that, when no

force is applied to the first cable, the first tissue stapling member is moved in the second direction relative to the second tissue stapling member.

4 The device according to claim 3, wherein the first tissue stapling member is an anvil and the second tissue stapling member is a staple firing mechanism.

5. The device according to claim 4, wherein the anvil is mounted to a shaft which is slidably coupled to the working head assembly and wherein the resilient member is a spring coupled between the shaft and the working head assembly.

6. The device according to claim 2, wherein the first tissue stapling member is an anvil and the second tissue stapling member is a staple firing mechanism and wherein the second cable extends around a pulley to couple to the anvil, so that, when the second cable is drawn proximally from the sheath, the anvil is moved distally relative to the staple firing mechanism.

7. The device according to claim 6, wherein the anvil is mounted to a shaft which is slidably coupled to the working head assembly and wherein the second cable is coupled to the shaft.

8. The device according to claim 6, wherein the anvil is coupled to a shaft slidably received within the working head assembly and wherein the first cable extends from a distal end of the shaft, through the sheath to the actuator so that, drawing the first cable proximally from the sheath draws the anvil proximally relative to the staple firing mechanism.

9. The device according to claim 1, further comprising a locking member on the control handle allowing an operator to lock the first and second tissue stapling members in a desired position relative to one another.

10. A full thickness resection device comprising:

a control handle including an actuator wherein, when the device is in an operative position within a body lumen of a patient, the control handle remains outside the patient's body;

a working head assembly coupled to a control handle by a flexible sheath, wherein, when the device is in the operative position; the working head assembly is located within a body lumen of the patient adjacent to a portion of tissue to be treated, the working head assembly including a tissue stapling mechanism including first and second tissue stapling members moveable relative to one another;

a flexible drive shaft extending from the actuator through the flexible sheath to the working head assembly;

a first threaded member coupled to a distal end of the drive shaft for rotation therewith; and

a first mounting bar coupled to the first tissue stapling member and movably received within the working head assembly, the first mounting bar including a threaded channel formed therein with the first threaded member received therein so that rotation of the first threaded member within the threaded channel moves the first mounting bar and the first member relative to the second tissue stapling member.

11. The device according to claim 10, wherein the first tissue stapling member is an anvil and the second tissue stapling member is a staple firing mechanism.

12. The device according to claim 10, wherein the first tissue stapling member is a staple firing mechanism and the second tissue stapling member is an anvil.

13. The device according to claim 10, wherein the first threaded member and the drive shaft are integrally formed.

14. The device according to claim 10, further comprising a gearing mechanism coupled between the drive shaft and the first threaded member so that rotation of the drive shaft rotates the gearing mechanism which rotates the first threaded member.

15. The device according to claim 14, further comprising a second mounting bar coupled to the first tissue stapling member and movably received within the working head assembly.

16. The device according to claim 15, further comprising a second threaded member received within a threaded channel formed within the second mounting bar, the second threaded member being coupled to the first threaded member by a gearing mechanism so that rotation of the first threaded member rotates the gearing mechanism which rotates the second threaded member within the threaded channel of the second mounting bar.

17. The device according to claim 15, wherein the drive shaft is coupled to the first and second threaded members by a gearing mechanism.

18. The device according to claim 10, further comprising a second mounting bar coupled to the first tissue stapling member and movably received within the working head assembly, the second mounting bar being coupled to the first mounting bar by a yoke member.

19. The device according to claim 10, further comprising a locking member on the control handle allowing an operator to lock the first and second tissue stapling members in a desired position relative to one another.

20. The device according to claim 11, wherein rotation of the drive shaft in a first direction moves the anvil away from the tissue stapling mechanism and rotation of the drive shaft in a second direction opposite to the first direction moves the anvil toward the tissue stapling mechanism.